# United States Marine Corps

## Creating an Accident-Free Culture

***Executive Safety Board Meeting***

***Camp Pendleton, CA***

***April 17, 2004***

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# Agenda

- **Introduction**
- **Context and Background**
- **Overview: Aim and Methods**
- **Phase One Findings: Leadership, Climate, Behaviors, Systems**
- **Phase Two Recommendations**

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- Established in 1979
- 100+ BST employees
- Consultants in U.S., Canada, and U.K.

- Partners in Australia, Europe, Korea, Singapore, and South Africa
- Worked with >250 organizations in 46 countries
- Consulted at over 1,600 locations worldwide

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# Context

- **Build on existing strengths**
- **Identify gaps**
- **Particular attention to PMV fatalities**
- **Sustainable mishap reduction**
- **Do not diminish *Combat Ethos***

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# Highlights of Strengths

- **Committed leadership and Safety Division**
- **Creation of Executive Safety Board**
- **Core Safety Services**
- **Integration of risk management into leadership forums**
- **Boot camp driver training**
- **FLAGALL**
- **Anymouse**
- **First signed 50% reduction POA&M**

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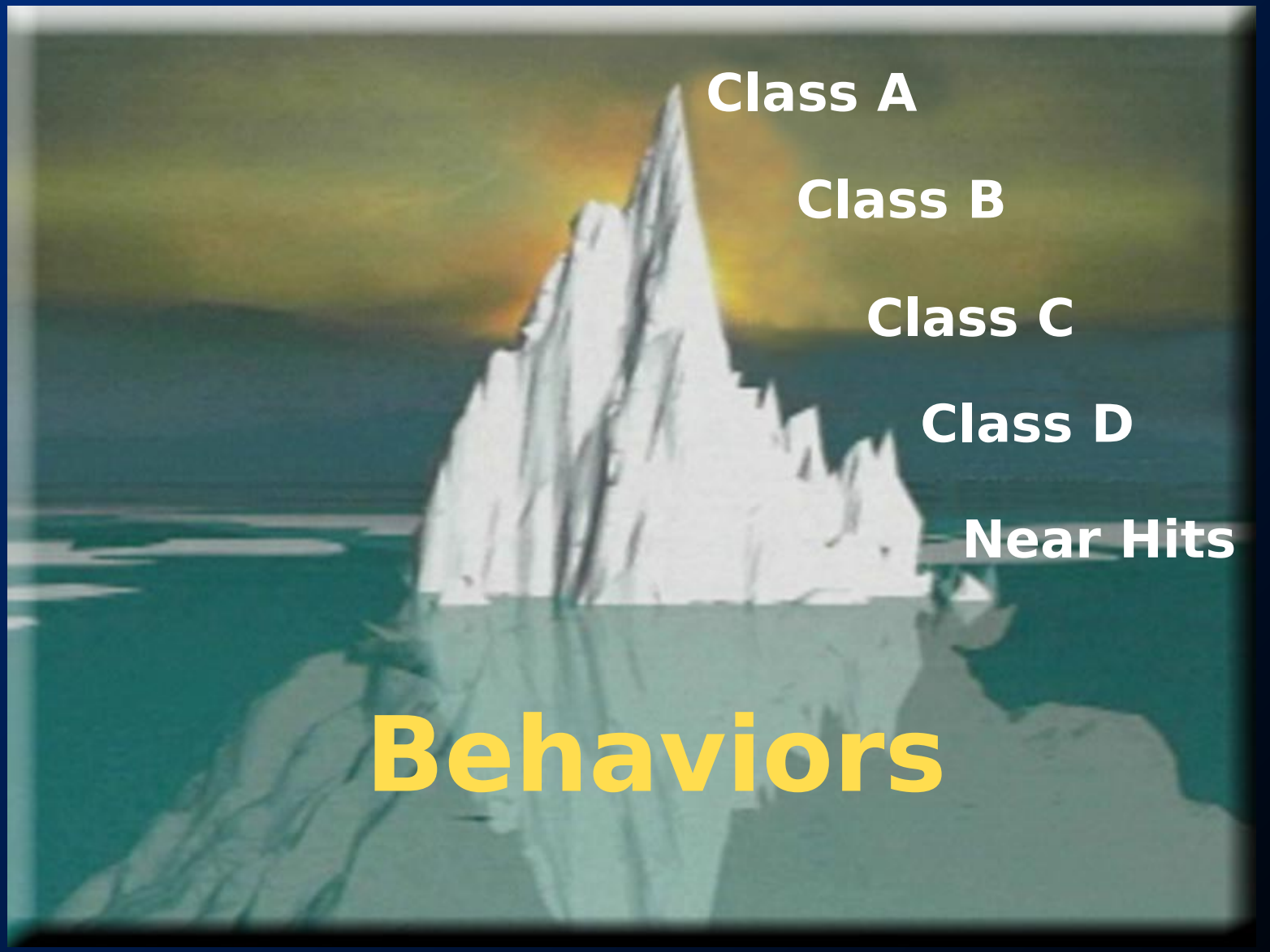


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# Why Behavior?

- **Proactive — before the event**
- **Line of site**
- **Observable therefore measurable**
- **Creates common language**
- **Facilitates alignment**
- **More neutral**

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# ABC Analysis

## Antecedents

Anything which precedes and triggers behavior

## Behavior

An observable act

## Consequences

Anything which directly follows from the behavior

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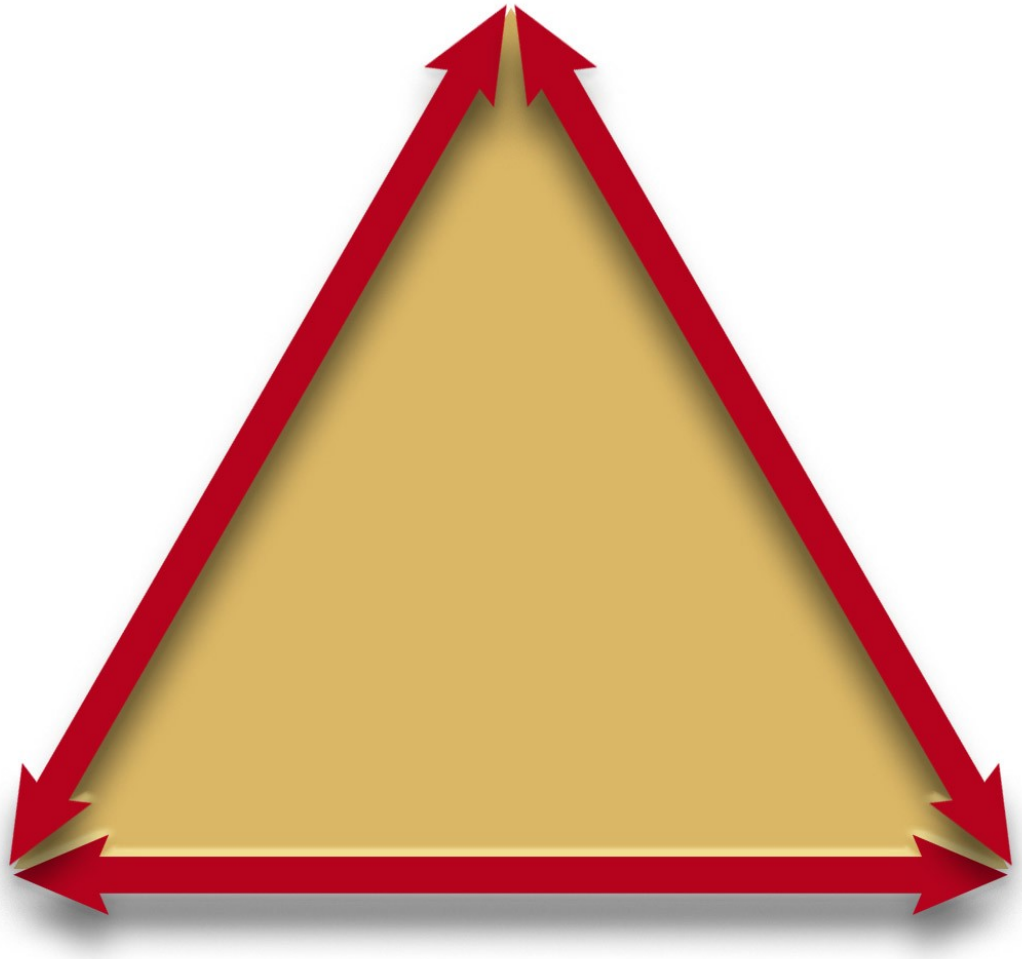
# Behavior



Systems

Climate

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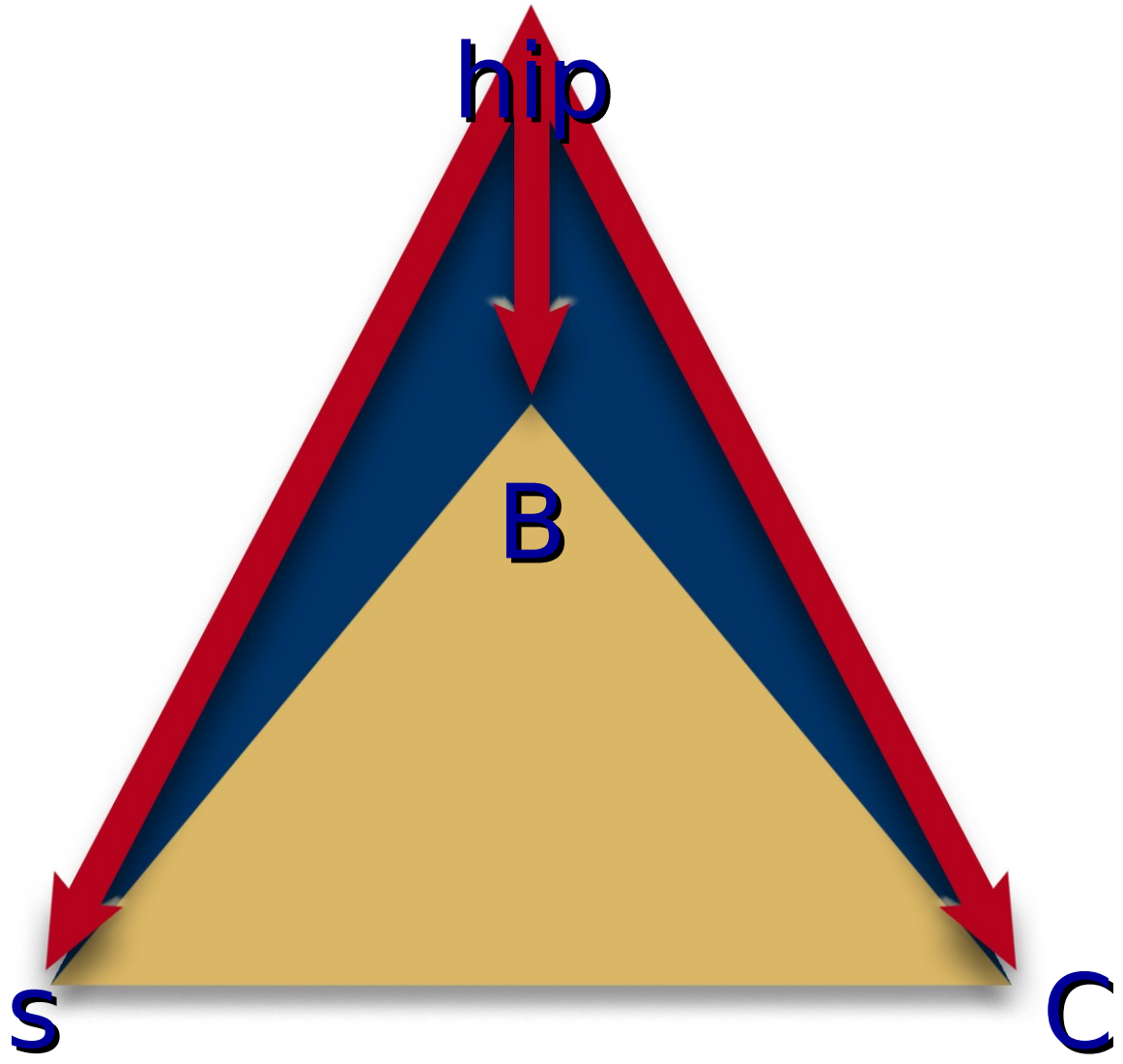
# Leadership

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## Root Causes

## Organizational qualities

### Leadership Factor

2. Leader-member exchange
3. Management credibility
4. Perceived organizational

### Team Factor

5. Work group relations
6. Teamwork

### Safety Factor

7. Organizational value for safety performance improvement
8. Upward communication
9. Approaching others

Organizational commitment
Openness to change
Job satisfaction
Mutual trust and respect between
supervisor and worker
Organizational citizenship behavior
Excellent communication and cooperation

### Outcomes

Incidence rates
Level of safe behavior
EHS costs

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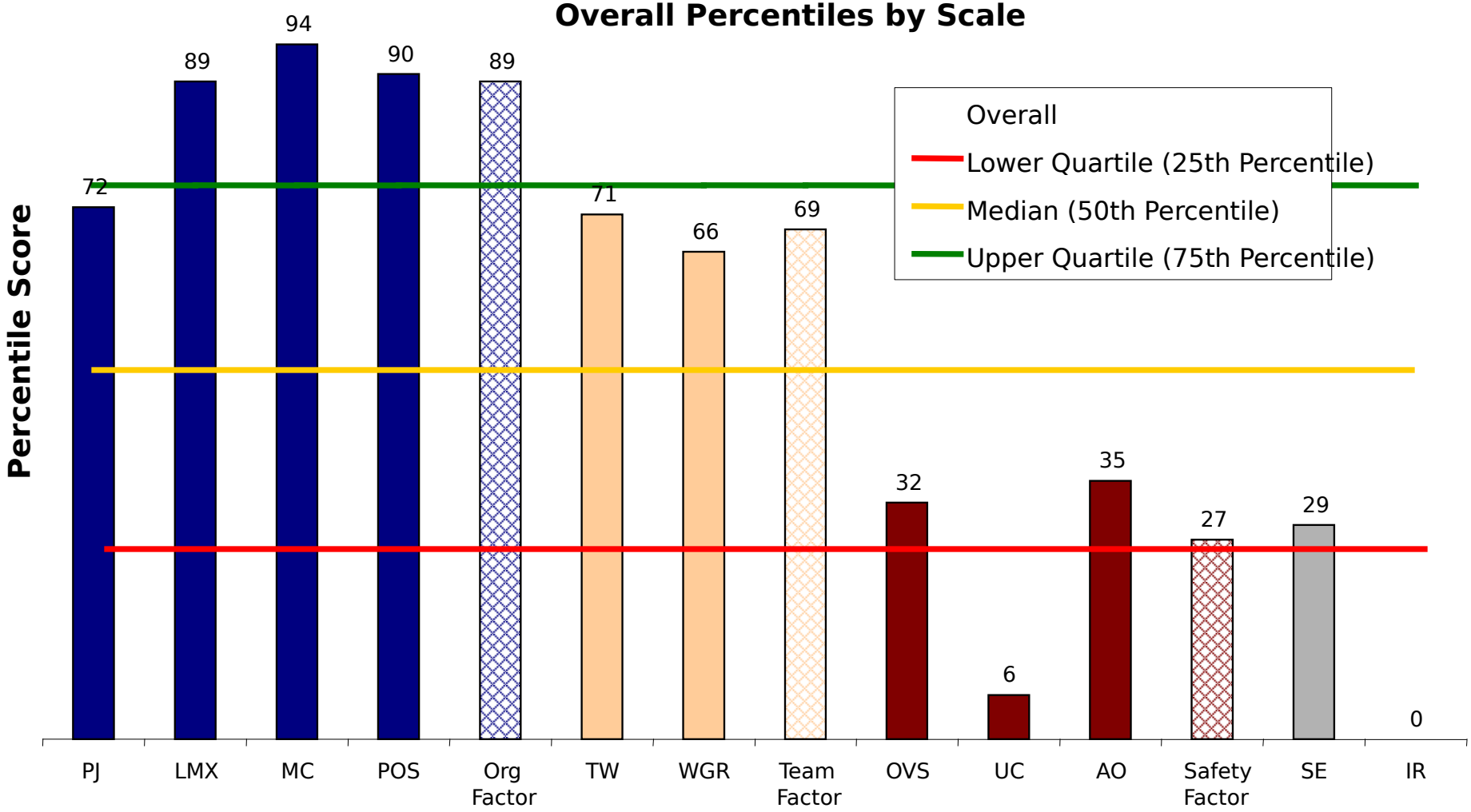
# USMC – Active Duty
# Overall Percentiles by Scale

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# Findings: Leadership, Climate & Behavior

- **Behavioral safety tools are not being used in any systematic way**
  - **Antecedent-based interventions and the loss of good will**
- **Denial, frustration and *"People are just stupid"* so don't waste resources**
  - **Better data systems**
  - **Better intervention tools**
- **Safety is just common sense vs. Safety is ORM**
  - **Natural consequences for at-risk behavior**
  - **Define and positively reinforce expectations around ORM use**

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# Findings: Leadership, Climate & Behavior

- **Safety is invisible, not valued by the USMC, low status and dangerous to one's career**
  - **A game you can never win but only lose**
- **Not a Marine 24/7: On duty safety is invisible, off duty safety is a pain**
- **Safety is Top Down**
  - **Missing a great opportunity for involvement for leadership at the lowest levels**

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# Findings: Leadership, Climate & Behavior

- **Organizations that don't effectively convey a real value for safety are spinning their wheels when they introduce safety efforts.**
  - **People know what is really expected of them and that's what they do. It doesn't pay to do otherwise.**
  - **It doesn't make sense to ask a Marine to value safety more off duty than he thinks it is valued on duty.**

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# Findings: Leadership, Climate & Behavior

- **Leaders must therefore turn around the perception of safety's value to the organization by…**
  - **Building safety explicitly into the day-to-lives of Marines**
  - **Raising the actual status of safety in the USMC**
  - **Building and supporting the systems required for high level safety performance**

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# *If you…*

- ***really care about your Marines as individuals,***
- ***know what's going on in their lives,***
- ***let them know what's expected of them,***
- ***hold them to a high standard,***
- ***don't nag them about what not to do, and***
- ***treat them as adults…***

***They perform admirably and this includes behaving safely and***

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# Systems

- Provide antecedents and consequences for behaviors
- Provide mechanisms for leadership
- Impact the culture

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# Findings: Systems

- “Faces & Spaces”
- Organizational Structure
- Safety Programs
- Data Systems
- Measurement Principles
- Safety Performance

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# “Faces and Spaces”

- POM/PR Allocations
- Operational Unit Safety Professionals
  - Program Design/Deployment
  - Reporting
  - End Strength
- Personnel Issues
  - Touchstone of Success vs. Safety Nazi
  - Right People/Right Symbol

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# Organizational Structure

- Well Grounded - Command Level
  - Safety Budget
- HQ USMC Needs
  - Measurement and Analysis
  - Program Design/Deployment
- Naval Safety Center
  - Organizational Alignment/Symbols
  - Service
  - Personalities

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# Safety Programs

- Traditional Safety
  - Command Emphasis; ESB; Strategic Safety Plan; Safety Marketing Plan; ORM; Climate Assessments; Driver Improvement, etc.
  - HARP
- Behavioral Safety
  - No system to incorporate concept
  - Lack of data

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# Data Systems

- MARTRAK – USMC Proactive Approach
  - Moving to Web Based
    - New system design challenges
  - Current Input Challenge
    - Not perceived as user friendly by some
    - Lack of computers/safety professionals

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# Measurement Principles

- Rules of the Road
  - Capture “Process Bubble”
  - Outcome vs. In Process Measures
  - Drilldown Capability
  - Define: who; what; when; desired outcome
  - Special Cause vs. Random Variation
  - Best Measure - USMC to USMC over time

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# Safety Performance

- Existing Measures
  - –Industrial
  - –Training Accidents
  - –PMV Fatalities

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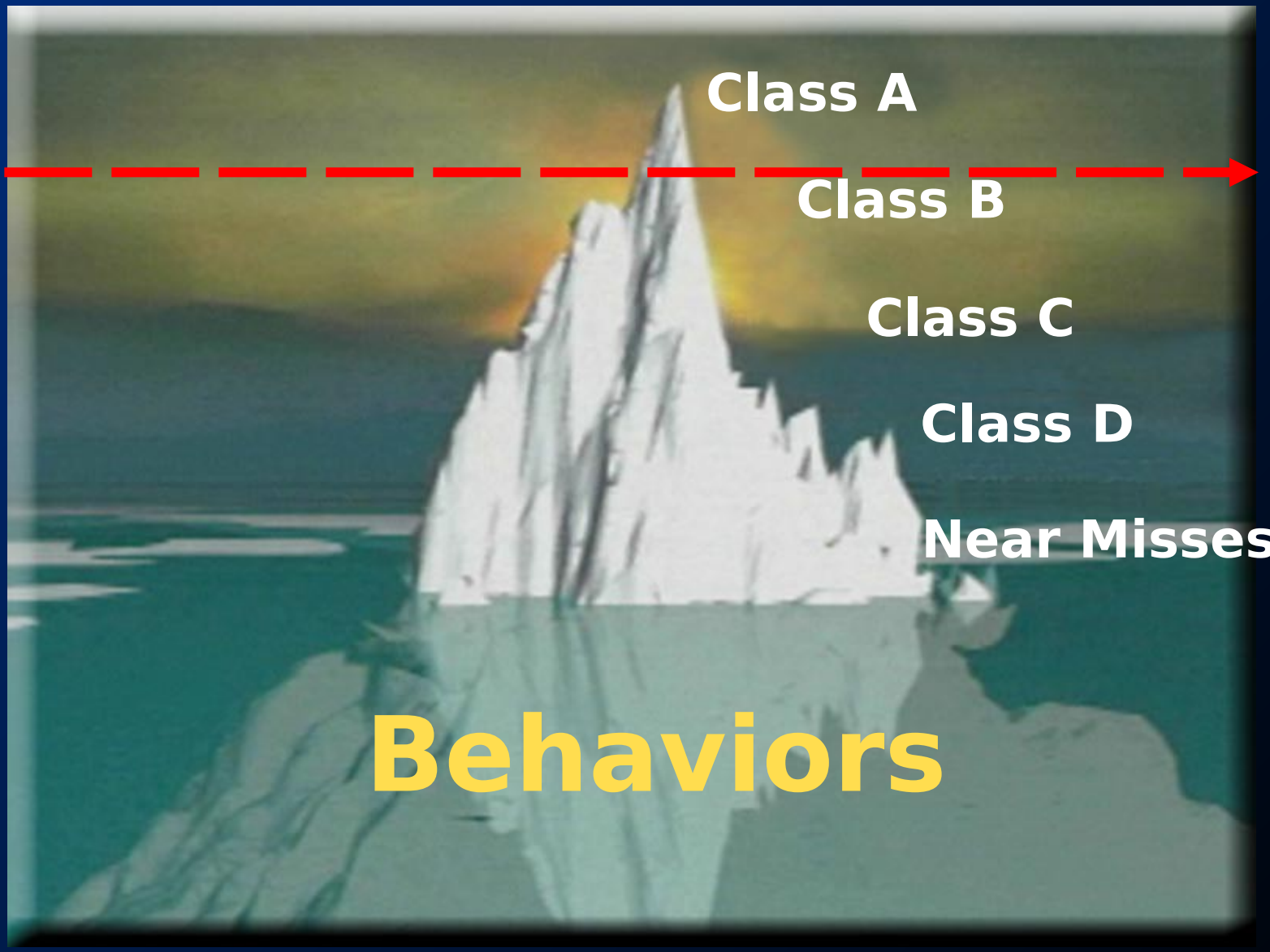


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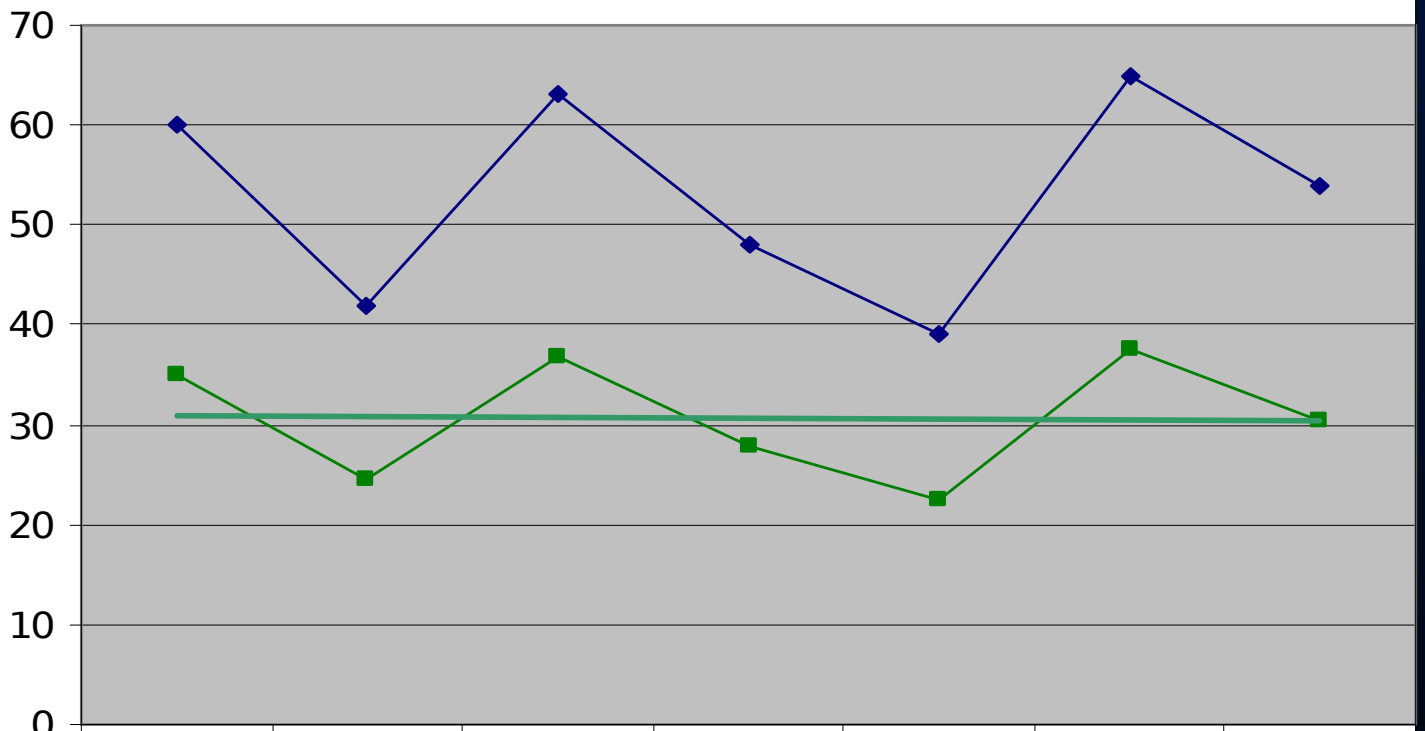
# USMC PMV Fatalities




| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|
| Fatalities | 60 | 42 | 63 | 48 | 39 | 65 | 54 |
| Fatality Rate | 35.0 | 24.5 | 36.7 | 27.9 | 22.6 | 37.4 | 30.4 |

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# Exposure Denominator

| USMC PMV Exposure | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Year** | **1997** | **1998** | **1999** | **2000** | **2001** | **2002** | **2003** |
| **End Strength** | 171,429 | 173,124 | 171,575 | 171,658 | 172,158 | 173,427 | 176,815 |
| **Less MCRD** | -1,666 | -1,666 | -1,666 | -1,666 | -1,666 | -1,666 | -1,666 |
| **Less Deployed** | -27,354 | -27,199 | -27,913 | -28,191 | -28,348 | -37,276 | -50,938 |
| **PMV Exposure** | **142,409** | **144,259** | **141,997** | **141,801** | **142,144** | **134,485** | **124,211** |
| **% Exposure Change** | -17% | -17% | -17% | -17% | -17% | -22% | -30% |
| Data Source: HQMC Manpower and Safety Center | | | | | | | |

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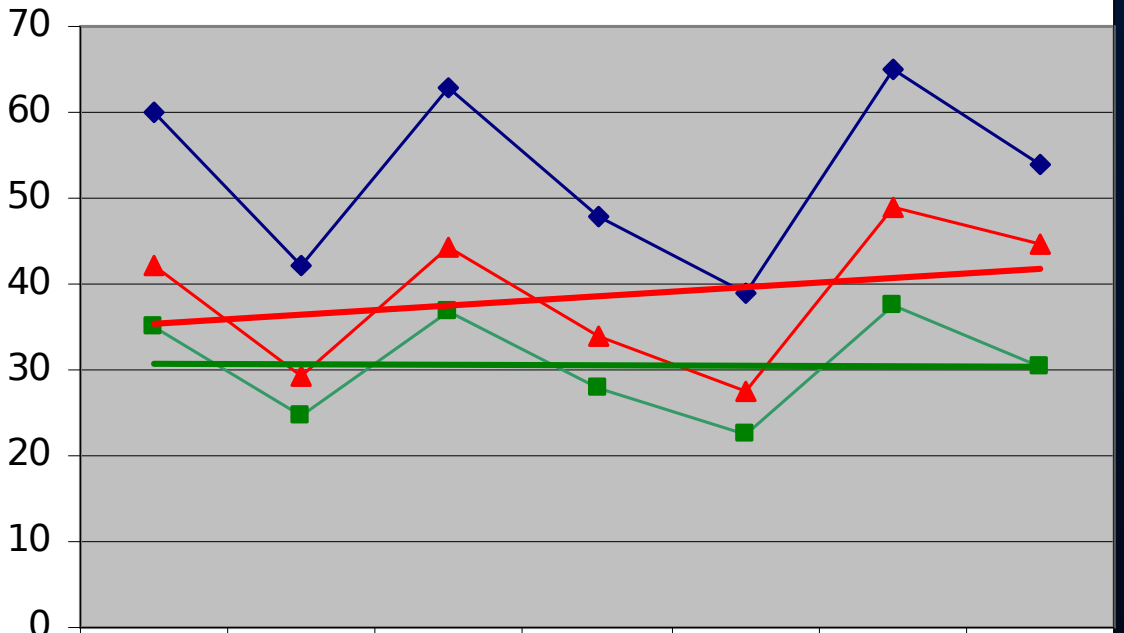
# USMC PMV Fatalities
# (Exposure Comparison)




| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|
| Fatalities | 60 | 42 | 63 | 48 | 39 | 65 | 54 |
| Fatality Rate | 35.0 | 24.5 | 36.7 | 27.9 | 22.6 | 37.4 | 30.4 |
| Adjusted Fatality Rate | 42.1 | 29.3 | 44.4 | 34.0 | 27.4 | 48.8 | 44.7 |

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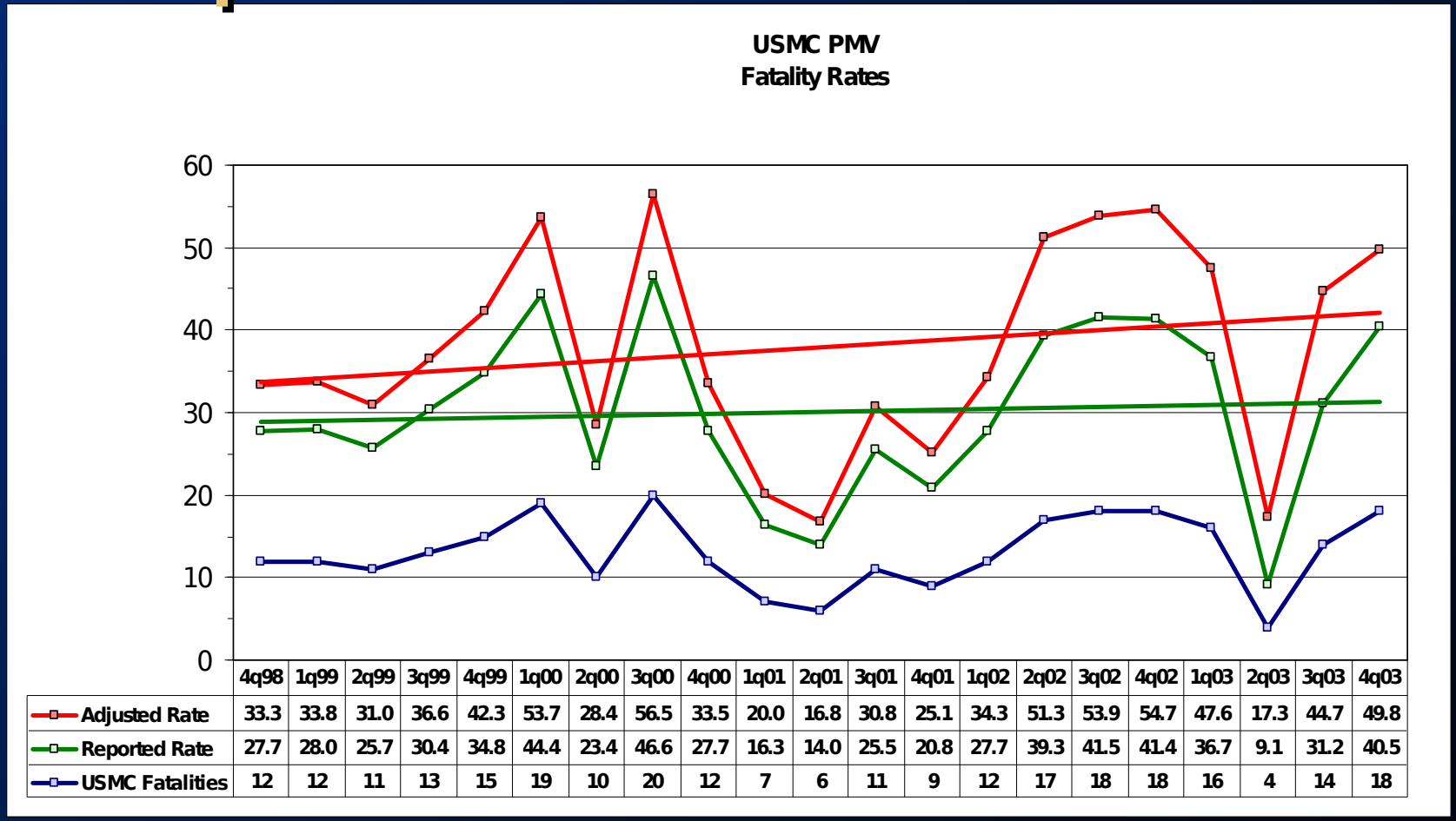
# Exposure Denominator




| | 4q98 | 1q99 | 2q99 | 3q99 | 4q99 | 1q00 | 2q00 | 3q00 | 4q00 | 1q01 | 2q01 | 3q01 | 4q01 | 1q02 | 2q02 | 3q02 | 4q02 | 1q03 | 2q03 | 3q03 | 4q03 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adjusted Rate | 33.3 | 33.8 | 31.0 | 36.6 | 42.3 | 53.7 | 28.4 | 56.5 | 33.5 | 20.0 | 16.8 | 30.8 | 25.1 | 34.3 | 51.3 | 53.9 | 54.7 | 47.6 | 17.3 | 44.7 | 49.8 |
| Reported Rate | 27.7 | 28.0 | 25.7 | 30.4 | 34.8 | 44.4 | 23.4 | 46.6 | 27.7 | 16.3 | 14.0 | 25.5 | 20.8 | 27.7 | 39.3 | 41.5 | 41.4 | 36.7 | 9.1 | 31.2 | 40.5 |
| USMC Fatalities | 12 | 12 | 11 | 13 | 15 | 19 | 10 | 20 | 12 | 7 | 6 | 11 | 9 | 12 | 17 | 18 | 18 | 16 | 4 | 14 | 18 |

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# PMV Results

- Not Getting Better
- Data Misdirection
- Little Drilldown Capability
- Class A Only
- Behavioral Information Missing

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# ABC Analysis Exercise

Issues:
Climate - Marine 24/7
System - Inadequate Data

- What behaviors flow from the issue?
- Select one behavior and perform an ABC analysis

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# How to Reduce At-risk Behavior

**Eliminate Antecedents**

**Eliminate Positive Consequences**

# How to Increase Safe Behavior

**Improve Antecedents**

**Improve Consequences**

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# Intervention Initiatives

- Design liberty/leave schedules to minimize fatigued driving
- Discontinue the practice of granting waivers for recruits with drug or serious vehicle violations unless they qualify on risk testing
- Establish a behavior-based measurement system and use it to identify barriers to safe performance and an opportunity to provide appropriate feedback
- Provide Automobile and Motorcycle “Combat Range Training”
- Expand feedback mechanisms (HARP)
- Establish Buddy Care as a concept with application whether off or on duty
- Develop and provide behavior-based safety leadership and Marine values courses that are mandatory requirements for advancements to certain grades and positions

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# Mishap Reduction Phases

**Phase I: Assessment and Strategy Development**

- **August 2003 - February 2004**

**Phase II: Leadership, Climate, Systems, and Behavior Implementation Plan Development**

- **March 2004 - July 2004**

**Phase III: Implementation**

- **July 2004 - July 2005**

**Phase IV: Further Roll-out and Sustainability**

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# Phase II - Implementation Plan Development

- Tasks
  - USMC Leadership – Develop and Deploy Safety Vision and Principles Aligned with USMC Values, Mission, and Systems__
  - Establish:
    - » Safety Climate Implementation Steering Team
    - » Behavioral Safety Design and Implementation Team
    - » Safety Systems Design and Implementation Team
  - Develop USMC BST Internal Consultants – INCON®s

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# Phase II - Implementation Plan Development

- USMC Leadership
  - Commandant and ACMC Briefs
  - Executive Safety Board Meeting
    - » Align on concepts and plan
    - » Establish teams

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# Phase II - Implementation Plan Development

- Safety Climate Implementation Steering Team
  - Chartering and overseeing the work of the other two teams
  - Determining the desirability of setting in motion some or all of BST's recommendations for Behavioral Safety Interventions.
  - Determining the desirability of setting in motion a process to create a coherent USMC safety system by implementing some or all of BST's recommendations for system improvement.
  - Determining how to best communicate this report with the USMC
  - Devising the internal USMC communication and deployment plans for this overall effort
  - Making decisions about specific climate-related issues and on what these decisions mean in terms of the leadership practices and behaviors required from Marine Corps leaders.

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# Phase II - Implementation Plan Development

- Climate team should consider:
  - Whether one is a Marine 24/7 and, if so, what that looks like in practice
  - Whether there is to be transparency in communications about accident statistics
  - The perceived double standard for incident reporting and discipline and how to reconcile it
  - Whether or in what ways there is to be Commander's discretion about implementing safety policy
  - How should sub-par performance be dealt with?
  - In what ways should the USMC formally and informally recognize exemplary safety performance?
  - What principles should guide the decision between needful and needless risk?

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# Phase II - Implementation Plan Development

- Behavioral Safety Design and Implementation Team
  - Managing safety-critical behaviors on base
  - Managing off-base safety: PMV safety
  - Screening
  - JCP
  - Web-based software
  - Identify and gain buy-in to critical behaviors
  - Automobile and Motorcycle combat range training
  - Monitoring and feedback mechanisms
  - Remove barriers

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# Phase II - Implementation Plan Development

- Safety Systems Design and Implementation Team
  - Competency-based Safety Learning Objectives (SLOs)
  - Make explicit and share risk management thought processes with recruits using behavioral principles
  - Establish a safety requirement for career advancement
  - Behavioral safety leadership training
  - Primary safety MOS position
  - Include safety as a fitness report category
  - Refine incident investigation process to capture root causes
  - NSC and CMC (SD) alignment
  - Discontinue counter-productive efforts

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# Phase II - Implementation Plan Development

- Internal Consultants
  - Strengthen the intervention development
  - Establish a mechanism for ongoing sustainability
  - Implement immediately at Marine Corps Logistic Bases/Depots ($99M in Work Comp. Losses over past 5 years)
  - A combination of classroom and BST supervised field work that lasts approximately 9 months

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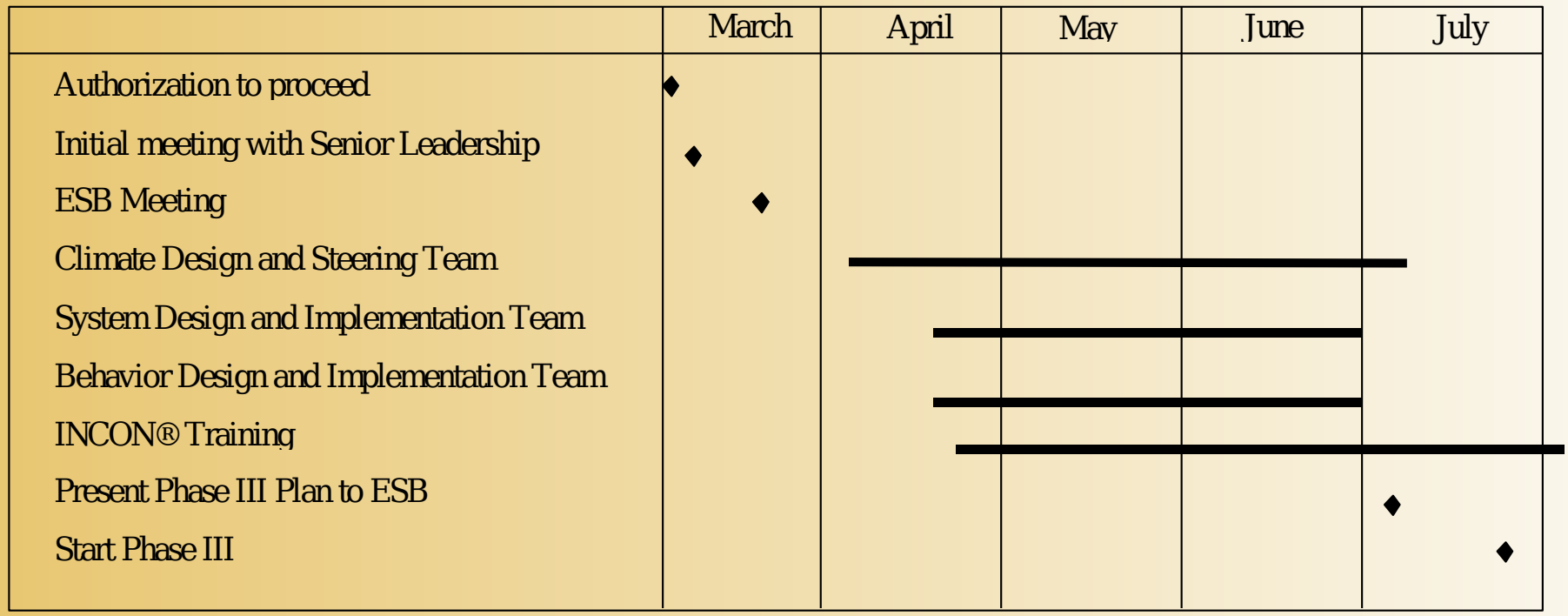
# Phase II - Implementation Schedule

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# United States Marine Corps

## Creating an Accident-Free Culture

***Executive Safety Board Meeting***

***Camp Pendleton, CA***

***April 17, 2004***

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